

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A solid polymer film having water solubility triggered by changes in pH comprising a polymer comprising:
5 to 40 mole percent of protonated amine monomer units, wherein said protonation is formed by a fixed acid; and
at least 60 mole percent of hydrophobic monomer units,
wherein water solubility of the polymer film is triggered by a change in pH, salt or surfactant concentration, or both,
wherein the polymer film has a thickness of 1 to 5 mil.
2. (Original) The polymer film of claim 1 wherein said hydrophobe monomer units comprise non-protonated amine monomer units.
3. (Canceled)
4. (Original) The polymer film of claim 1 comprising from 5 to 100 mole percent of at least one amine monomer, including both protonated and non-protonated amines.
5. (Original) The polymer film of claim 4 comprising from 10 to 40 mole percent of at least one amine monomer, including both protonated and non-protonated amines.
6. (Original) The polymer film of claim 5 comprising from 10 to 20 mole percent of at least one amine monomer, including both protonated and non-protonated amines.
7. (Original) The polymer film of claim 1 wherein said fixed acid comprises at least one monofunctional acid.

8. (Previously presented) The polymer film of claim 1 wherein said hydrophobic monomer comprises (meth)acrylates, maleates, (meth)acrylamides, vinyl esters, itaconates, styrenics, unsaturated hydrocarbons and acrylonitrile, nitrogen functional monomers, vinyl esters, alcohol functional monomers, unsaturated hydrocarbons, and C₈-C₂₂ alkoxylated (meth)acrylates.
9. (Original) The polymer film of claim 8 wherein said hydrophobic monomers comprise methyl methacrylate, ethyl acrylate, and butyl acrylate.
10. (Original) The polymer film of claim 1 comprising from 60 to 98 mole percent of said hydrophobic monomer units.

11-21. (Canceled)